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COMMENTARY

Ebrahim and Smith conclude that counseling or education to reduce cardiovascular risk factors fails to reduce all-cause mortality or mortality from CAD. This conclusion is not surprising because patients included in these studies were from the general population, at average risk for CAD, and the trials had a median follow-up of 3 years. The benefits of risk factor reduction may develop after many years.

All risk factors are not created equal. The potential benefits of behavioral approaches to reduce tobacco use in average-risk patients are greater than those of counseling to alter diet or increase exercise. The cost-effectiveness of smoking cessation programs is <\$1,000 per life-year saved.¹ Also, the potential benefit of adjunctive pharmacologic therapy to counseling or education needs to be emphasized. The addition of a 9-week course of sustained-release bupropion hydrochloride, with or without nicotine

replacement therapy, to a brief program of physician advice and counseling may produce 1 year abstinence rates of greater than 30%.²

Finally, not all patients are equally motivated to change their lifestyle. Intensive lifestyle changes in motivated patients with established disease can decrease the incidence of cardiac events.³ The potential effect of lifestyle modification in motivated, high-risk patients may be substantial.

References

- 1 Curry SJ, Grothaus LC, McAfee T, et al. Use and cost effectiveness of smoking-cessation services under four insurance plans in a health maintenance organization. *N Engl J Med* 1998;339:673-679.
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Can the prophylactic use of raloxifene, a selective estrogen-receptor modulator, prevent bone mineral loss and fractures in women with diagnosed osteoporosis or vertebral fractures?

Ettinger B, Black DM, Mitlak BH, et al. Reduction of vertebral fracture risk in postmenopausal women with osteoporosis treated with raloxifene: results from a 3-year randomized clinical trial. Multiple Outcomes of Raloxifene Evaluation (MORE) Investigators. *JAMA* 1999;282:637-646.

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Competing interests:
None declared

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DESIGN

A 36-month randomized, blinded, placebo-controlled study.

SETTING

A multicentered trial in 25 countries; more than half the participants were from the United States and Canada.

PARTICIPANTS

A total of 7,705 women, aged 31 to 80 years, who were at least 2 years postmenopause and either had osteoporosis by criteria of the World Health Organization or 1 or 2 vertebral fractures diagnosed by radiography. Ninety-five percent of the women were white. The mean age of the total group was 67 years. Twenty-six to twenty-nine percent of women had previously received estrogen therapy, and this did not vary significantly between the placebo and treatment groups. About one fifth of the women had had hysterectomies. Osteoporosis was diagnosed by a bone mineral density (BMD) *t* score (which is the deviation

from values for young adults) of ≥ 2.5 SDs. Women who had used estrogen, androgens, calcitonin, bisphosphonates (all medications used to treat osteoporosis), steroids, or antiseizure drugs within 3 months were excluded. Women who had bone disease; endocrine disorders; renal or liver disease; alcoholism; endometrial, breast, or other cancer; undiagnosed uterine bleeding; a history of thrombotic events; or more than 2 vertebral fractures or pathologic fractures were also excluded.

INTERVENTION

Women were classified as group 1 (women diagnosed with osteoporosis) or group 2 (women with ≥ 1 moderate to severe or ≥ 2 mild to moderate vertebral fractures and reduced BMD). They were then randomly allocated to 1 of 3 groups. One group received raloxifene hydrochloride, 60 mg daily; the second received raloxifene, 120 mg daily; and the third received a placebo. All women were placed on a daily regimen of calcium, 500 mg, and vitamin D, 400 to 600 mg IU. The women were then observed for 36 months.